

Abstract

Piscivorous birds are often blamed for causing significant damage to fish stocks. Various methods are used to determine the composition of their food, each of them has limits in its ability to determine the complete food spectrum. This work maps the complete food composition of 14 species of fish-eating birds with a method that is not commonly used. Method used in this work uses analysis of publicly available photos on Google.com. In addition to the complete composition of the food, the species composition of the non-fish part of the prey was also determined, and in the case of the Great Cormorant (*Phalacrocorax carbo*), also the length of the fishes it catches. The aim of this work is to reveal the usability of this method for these purposes. A total of 2350 retrieved photographs were analyzed. The results obtained by photo analysis are in all cases compared with data in the available literature. For representatives of heron birds (Ardeidae), the analysis of photographs provided good information on the food spectrum of individual birds and on the qualitative composition of the non-fish component. It also provided relatively good information on the diet of the White-tailed Eagle (*Haliaeetus albicilla*), but the bird part of the prey was slightly underestimated. In the diet of the Great Crested Grebe (*Podiceps cristatus*), the non-fish food component represented 9.4%. Apart from the four representatives of sharks, the food composition of the Osprey (*Pandion haliaetus*) consisted only of fish. Only 4 pieces of non-fish prey were captured in the diet of the Black Stork (*Ciconia nigra*) in 84 analyzed photographs. The average size of fish captured by the Great Cormorant in the photographs was 22.3 cm. The smallest catch was 8 cm long and the largest 50 cm long. The weakness of the used method lies mainly in the capture of small prey. This is most evident on insect prey and the smallest fish prey, which is captured on photographs in only a small number of cases. Fishes with a length of less than 10 cm are underestimated, and on the contrary, the representation of fishes with a length of 30 cm and more are overestimated.

Key words: Piscivorous birds, Food, Prey, Photograph, Great Cormorant, Herons, Great Crested Grebe, White-tailed Eagle, Storks